IN THE CLAIMS

Please add the following claims:

32. (New) A speech coder output frame, comprising:

a quantized target error vector of pitch lag components;

a quantized target error vector of amplitude components;

a quantized target error vector of phase components; and

a quantized target error vector of linear spectral information components, wherein the pitch lag components, amplitude components, phase components, and the linear spectral information components have been extracted from a voiced speech frame.

33. (New) The speech coder output frame of Claim 32, wherein the quantized target error vector of pitch lag components is based on a target error vector of pitch lag components ($\hat{\delta L}_m$) that is described by a formula:

$$\hat{\delta L}_m = L_m - \eta_{m_1} L_{m_1} - \eta_{m_2} L_{m_2} - \ldots - \eta_{m_N} L_{m_N},$$

wherein the values $L_{m_1}, L_{m_2}, \ldots, L_{m_N}$ are the pitch lags for frames $m_1, m_2, \ldots, m_N$, respectively and the values $\eta_{m_1}, \eta_{m_2}, \ldots, \eta_{m_N}$ are weights corresponding to frames $m_1, m_2, \ldots, m_N$, respectively.

34. (New) The speech coder output frame of Claim 32, wherein the quantized target error vector of amplitude components is based on a target error vector of amplitude components ($\delta \mathbf{A}_m$) that is described by a formula:

$$\delta \mathbf{A}_m = \mathbf{A}_m - \boldsymbol{\alpha}_{m_1}^T \mathbf{A}_{m_1} - \boldsymbol{\alpha}_{m_2}^T \mathbf{A}_{m_2} - \ldots - \boldsymbol{\alpha}_{m_N}^T \mathbf{A}_{m_N},$$

wherein the values $\mathbf{A}_{m_1}, \mathbf{A}_{m_2}, \ldots, \mathbf{A}_{m_N}$ are a subset of the amplitude vector for frames $m_1, m_2, \ldots, m_N$, respectively, and the values $\boldsymbol{\alpha}_{m_1}^T, \boldsymbol{\alpha}_{m_2}^T, \ldots, \boldsymbol{\alpha}_{m_N}^T$ are the transposes of corresponding weight vectors.

35. (New) The speech coder output frame of Claim 32, wherein the quantized target error vector of phase components is based on a target error vector of phase components (φ_m) that is described by a formula:

$$\varphi_m = \varphi'_{m-1},$$

wherein φ'_{m-1} represent the phases of an extracted prototype.

36. (New) The speech coder output frame of Claim 32, wherein the quantized target error vector of linear spectral information components is based on a target error vector of linear spectral information components (T_M^n) that is described by a formula:

$$T_M^n = \frac{\left(L_M^n - \beta_1^n \hat{U}_{M-1}^n - \beta_2^n \hat{U}_{M-2}^n - \dots - \beta_P^n \hat{U}_{M-P}^n\right)}{\beta_0^n}; \quad n = 0,1,\dots,N-1$$

wherein the values $\left\{\hat{U}_{M-1}^n, \hat{U}_{M-2}^n, \dots, \hat{U}_{M-P}^n;\ n = 0,1,\dots,N-1\right\}$ are the contributions of linear spectral information parameters of a number of frames, P, immediately prior to frame M, and the values $\left\{\beta_1^n, \beta_2^n, \dots, \beta_P^n;\ n = 0,1,\dots,N-1\right\}$ are respective weights such that $\left\{\beta_0^n + \beta_1^n + \dots + \beta_P^n = 1;\ n = 0,1,\dots,N-1\right\}$.

37. (New) A method for forming a speech coder output frame, comprising:

quantizing a target error vector of pitch lag components;

quantizing a target error vector of amplitude components;

quantizing a target error vector of phase components; and

quantizing a target error vector of linear spectral information components,

wherein the pitch lag components, amplitude components, phase components, and the linear spectral information components have been extracted from a voiced speech frame.